

Appln No. 10/043,763

Amdt date March 2, 2004

Reply to Office action of January 12, 2004

REMARKS/ARGUMENTS

Claims 1-6 and 23-29 are pending in the present application. Applicant appreciates the indication that claims 4, 27 and 28 have been allowed. Applicant further appreciates the indication that claims 2 and 23-25 are allowable if rewritten in independent form. As none of the amendments herein would require a new search, applicant respectfully requests that the amendment be entered. Applicant further respectfully requests reconsideration and allowance of claims 1, 3, 5, 6, 26 and 29 in addition to the already allowed/allowable claims 2, 4, 23-25, 27 and 28.

Applicant noticed a clerical error on FIG. 17, which has been corrected herein. No new matter has been added. A redlined copy of FIG. 17 and a replacement sheet are enclosed herewith. Applicant requests that the change noted be entered.

Claims 26 and 29 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 26, which depends from the allowed claim 4, has been amended to correct antecedent basis. In addition, claim 29 has been amended to depend from the allowed claim 27. Therefore, applicant requests that the rejection of claims 26 and 29 be withdrawn and that they be allowed.

Claims 1, 3, 5 and 6 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,617,473 ("Bingham").

According to the Office Action regarding claims 1 and 3, "Bingham discloses, in Figs. 1-3, a circuit that provides a

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method comprising: "accepting a voltage from a power supply input to the integrated circuit (14)"; "accepting a pad voltage (provided to node 26) from an external voltage source (22)"; "comparing (with 36 and 56)"; "coupling (via 132) a bias voltage (V-) to a gate of a PMOS device (48) when the power supply is below the predetermined value", and "coupling (via 48) the pad voltage to a bias_mid node (30) to provide the bias voltage"."
(Emphasis Added)

Applicant disagrees with the analysis in the Office Action because of at least the following reason.

Claim 1 recites "accepting a voltage from a power supply input to the integrated circuit; accepting a pad voltage from the external voltage source; comparing the power supply voltage to a predetermined value." (Emphasis Added) The rejection in the Office Action appears to be based on an assumption that "a pad voltage from the external voltage source" and "a predetermined value" are one and the same. In fact, the Office Action appears to equate "comparing (with 36 and 56)" in Bingham with "comparing the power supply voltage to a predetermined value" in the claims of the present application.

Applicant submits, however, that "a pad voltage" and "a predetermined value" are two distinct quantities that are not necessarily identical. As can be seen in FIG. 2 of Bingham that a differential comparator 36 compares a first input 24 (coupled to a terminal 14) to a second input 26. If the first input 24 is considered as "a voltage from a power supply input" (i.e., "the power supply voltage") and the second input 26 is considered as "a pad voltage", any comparison between the first input 24 and the second input 26 should be considered comparing

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the power supply voltage to the pad voltage, and not "comparing the power supply voltage to a predetermined value."

In view of this, applicant submits that claim 1 is not anticipated by Bingham, and requests that the rejection of claim 1 be withdrawn and that it be allowed. Since claim 3 depends from claim 1, it incorporates all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish claim 3 over the cited references. Therefore, applicant requests that the rejection of claim 3 be withdrawn and that it be allowed.

The Office Action states regarding claims 5 and 6 that "Bingham discloses, in Figs. 1-3, a circuit that provides a method comprising: "providing V_{DDO} (14) to a control electrode of a first semiconductor device (72)", "providing bias_mid (V_-) (via 92) to a source of the first semiconductor device (72) such that the first semiconductor device will turn off when $V_{DDO} - bias_mid$ is less than the threshold of the first semiconductor device"; and "providing bias_mid to a gate of an MOS device (48)"; in response to the turn off the first semiconductor device to couple V_{pad} to bias_mid"." (Emphasis Added)

Claim 5 is directed to a method for "generating a bias voltage (bias_mid) from a pad voltage (V_{pad}).". Claim 5 recites "providing bias_mid to a gate of a MOS device in response to the turn off of the first semiconductor device to turn on the MOS device to couple V_{pad} to bias_mid." The Office Action appears to equate the first semiconductor device to the n-channel MOS transistor 72, and the MOS device to the p-channel MOS transistor 48. Further, the Office Action appears to equate V_- with "bias_mid."

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If substitutions are made as suggested by the Office Action, claim 5 would recite "providing V- to a gate of [the p-channel MOS transistor 48] in response to the turn off of [the n-channel MOS transistor 72] to couple V_{pad} to V-." It can be seen in FIG. 3 of Bingham, however, that turning off of the n-channel MOS transistor 72 does not have any direct relationship to providing V- to the gate of the p-channel MOS transistor 48. Therefore, Bingham does not teach "providing bias_{mid} to a gate of a MOS device in response to the turn off of the first semiconductor device to turn on the MOS device . . ." (Emphasis Added)

In view of this, applicant requests that the rejection of claim 5 be withdrawn and that it be allowed. Since claim 6 depends from claim 5, it incorporates all the terms and limitations of claim 5 in addition to other limitations, which together further patentably distinguish it over the cited references. Therefore, applicant requests that the rejection of claim 6 be withdrawn and that it be allowed.

In view of the foregoing amendments and remarks, applicant respectfully requests an early issuance of a patent with claims 1-6 and 23-29. If there are any remaining issues that can be addressed over the telephone, the Examiner is invited to call applicant's attorney at the number listed below.

Respectfully submitted,

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FIG. 17

